

DEC 10 1999

Gwen B. Zervas, P.E.
Case Manager
Bureau of Federal Case Management
New Jersey Department of Environmental Protection
401 East State Street
P. O. Box 028
Trenton New Jersey 08625

RE: Remedial options for LNAPL at the L.E. Carpenter site,
Wharton, New Jersey

Dear Ms. Zervas:

Based on our recent telephone conversation, I am pleased to provide the following technologies that should serve to help increase the pace of LNAPL remediation at the L.E. Carpenter site. Based on a review of sites with similar groundwater and contamination conditions, the most likely technology for amending the remedial system would be the installation of collection trenches. The trenches would be placed strategically throughout LNAPL impacted areas. Especially because of the greater surface area presented by trenches, they should be able to significantly increase the speed of LNAPL recovery in comparison to pumping the current network of vertical wells on a monthly basis.

The most effective operation of such trenches would include continual removal of LNAPL, and not a more passive periodic collection. Subsequently, a multi-phase treatment approach would be needed, including LNAPL collection and separation, as well as treatment of removed water.

In addition to the above, it would also be prudent to investigate technologies which would increase LNAPL mobility.

Several possibilities include injection of steam, hot water, or some other method of heating the effected area, as well as the use of environmentally safe surfactants that would enhance contaminant mobility. Especially with respect to the latter approach, we would request that bench and possibly a limited pilot test be conducted to study its feasibility, as care must be taken not to spread contamination beyond existing boundaries.

346067



In addition to the above, with respect to scheduling the overall site strategy meeting we talked about, to be held in Edison, during January, our hydrologist is available on January 13, 21, 25, 27 and 28. If neither of these days are feasible, please suggest additional ones.

Should you have any questions or comments on the above, please feel free to call me at (212) 637-4411. Thank you for the opportunity to provide the above suggestions.

Yours truly,

Stephen Cipot, Remedial Project Manager
Southern New Jersey Remedial Section

bcc: Kimberly O'Connell, SNJRS
Andy Crossland, PSB
Stephen Cipot, SNJRS